Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAYKC1621

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPCI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS	20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS	21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS	22	APR 28	IMSRESEARCH reloaded with enhancements

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:58:58 ON 22 MAY 2008

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 09:59:21 ON 22 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 22 May 2008 VOL 148 ISS 21
FILE LAST UPDATED: 21 May 2008 (20080521/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s perna (w) canaliculus (L) lipid (L) (extract or extraction)

667	PERNA
1	PERNAS
667	PERNA
	(PERNA OR PERNAS)
1137	CANALICULUS
1234	CANALICULI
4	CANALICULIS
2143	CANALICULUS
	(CANALICULUS OR CANALICULI OR CANALICULIS)
309601	LIPID
220056	LIPIDS
376027	LIPID
	(LIPID OR LIPIDS)
50709	EXTRACT
51913	EXTRACTS
97808	EXTRACT
	(EXTRACT OR EXTRACTS)

```
        342090 EXT
        241643 EXTS
        519508 EXT
                 (EXT OR EXTS)
        555103 EXTRACT
                 (EXTRACT OR EXT)
        173034 EXTRACTION
          1252 EXTRACTIONS
        173766 EXTRACTION
                 (EXTRACTION OR EXTRACTIONS)
        434936 EXTN
         15754 EXTNS
        440931 EXTN
                 (EXTN OR EXTNS)
        476055 EXTRACTION
                 (EXTRACTION OR EXTN)
L1          14 PERNA (W) CANALICULUS (L) LIPID (L) (EXTRACT OR EXTRACTION)

=> d l1 1-14 ibib abs

L1   ANSWER 1 OF 14  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2008:12773  CAPLUS
DOCUMENT NUMBER:         148:409888
TITLE:                   The CO2-SFE crude lipid extract
                         and the free fatty acid extract from
                         Perna canaliculus have
                         anti-inflammatory effects on adjuvant-induced
                         arthritis in rats
AUTHOR(S):               Singh, M.; Hodges, L. D.; Wright, P. F. A.; Cheah, D.
                         M. Y.; Wynne, P. M.; Kalafatis, N.; Macrides, T. A.
CORPORATE SOURCE:        Natural Products Research Group, School of Medical
                         Sciences, RMIT University, Bundoora, Victoria, 3083,
                         Australia
SOURCE:                  Comparative Biochemistry and Physiology, Part B:
                         Biochemistry & Molecular Biology (2008), 149B(2),
                         251-258
                         CODEN: CBPBB8; ISSN: 1096-4959
PUBLISHER:               Elsevier B.V.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   The anti-inflammatory (AI) activity of a supercrit. fluid extract
     (CO2-SFE) of tartaric acid-stabilized Perna canaliculus
     mussel powder, and of the free fatty acid (FFA) class separated from the
     CO2-SFE extract by column chromatog., was investigated in the rat
     adjuvant arthritis model.  Administration of the CO2-SFE extract
     (100 mg/kg BW/day s.c.) for 15 days post-adjuvant inoculation
     significantly reduced rear paw swelling by 34% and the deterioration in
     total body condition by 52% in arthritic rats, compared to vehicle
     controls.  These observations were accompanied by a decreased blood serum
     ceruloplasmin oxidase activity, and reduced inflammatory response of the
     spleen.  The mussel FFA extract given at one 3rd of the dose (30
     mg/kg BW/day s.c.) and for a shorter treatment period (5 days during the
     inflammatory phase) achieved an even greater AI activity, and was
     equipotent to piroxicam (2 mg/kg BW/day s.c.).  Preliminary toxicol.
     assessment using both arthritic and non-arthritic (healthy) rats revealed
     no significant differences between the mussel treatment groups and resp.
     vehicle controls in either organ wts., tissue histol., or selected
```

biochem. parameters. These results indicate the CO2-SFE crude lipid extract and its FFA components from stabilized P. canaliculus mussel powder contain biol. significant AI activity in vivo, with no apparent adverse side effects.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1364430 CAPLUS
DOCUMENT NUMBER: 148:10114
TITLE: Extraction of highly unsaturated lipids with liquid dimethyl ether
INVENTOR(S): Catchpole, Owen John; Grey, John Bertram; Mackenzie, Andrew Douglas; Tallon, Stephen John
PATENT ASSIGNEE(S): Industrial Research Limited, N. Z.
SOURCE: PCT Int. Appl., 32pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007136281	A1	20071129	WO 2007-NZ122	20070524

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: NZ 2006-547429 A 20060524

AB A process for obtaining lipids containing highly unsatd. fatty acids from plant or animal material includes contacting the material with liquid di-Me ether to give a di-Me ether solution containing lipids and a residue of plant or animal material, separating the solution from the residue of plant or animal material, and recovering lipids from the solution Near-critical carbon dioxide may optionally be used to further process the recovered lipids. Thus, a lipid fraction (53% phospholipids) is extracted from dried and ground beef liver by using near-critical di-Me ether (40 bars, 313°K).

L1 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:974956 CAPLUS
TITLE: Mussel extract derivative with anti-inflammatory activity
INVENTOR(S): Croft, John Eric
PATENT ASSIGNEE(S): Healtheries of New Zealand Limited, N. Z.
SOURCE: N.Z.
CODEN: NZXXBT
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NZ 510407	A	20040528	NZ 2001-510407	20010308

PRIORITY APPLN. INFO.: NZ 2001-510407 20010308

AB Extracts from the New Zealand Green-Lipped Mussel (Perna canaliculus), including, an anti-inflammatory extract of carbohydrate(s) and lipid(s) and an anti-inflammatory extract being an extract of proteins, lipids and carbohydrates which at least to some extent has been de-proteinated. Methods of preparing such extracts are also disclosed.

L1 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:687367 CAPLUS
DOCUMENT NUMBER: 147:364031
TITLE: Novel anti-inflammatory ω-3 PUFAs from the New Zealand green-lipped mussel, Perna canaliculus
AUTHOR(S): Treschow, A. P.; Hodges, L. D.; Wright, P. F. A.; Wynne, P. M.; Kalafatis, N.; Macrides, T. A.
CORPORATE SOURCE: Natural Products Research Group, School of Medical Sciences, RMIT University, Bundoora, 3083, Australia
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (2007), 147B(4), 645-656
CODEN: CBPBB8; ISSN: 1096-4959
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The present study has identified in the marine mollusc, Perna canaliculus, an homologous series of novel omega 3 polyunsatd. fatty acids (ω-3 PUFA) with significant anti-inflammatory (AI) activity. The free fatty acid (FFA) class was isolated from a supercrit.-CO2 lipid extract of the tartaric acid-stabilized freeze-dried mussel powder by normal phase chromatog., followed by reversed-phase high performance liquid chromatog. (RP-HPLC). The RP-HPLC involved separation based on carbon nos., followed by argentation-HPLC (Ag-HPLC) of the Me esters based on degree of unsatn. Identification of the FFA components was performed using gas chromatog. (GC) with flame ionization detection, and individual structures were assigned by GC-mass spectroscopy (GC-MS). Inhibition of leukotriene production by stimulated human neutrophils was used as an in vitro screening method to test the AI activity of the purified PUFAs. A structurally related family of ω-3 PUFAs was identified in the most bioactive fractions, which included C18:4, C19:4, C20:4, and C21:5 PUFA. The C20:4 was the predominant PUFA in the extract, and was a structural isomer of arachidonic acid (AA). The novel compds. may be biol. significant as AI agents, as a result of their in vitro inhibition of lipoxygenase products of the AA pathway.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:188755 CAPLUS
DOCUMENT NUMBER: 147:419627

TITLE: Anti-cyclooxygenase effects of lipid extracts from the New Zealand green-lipped mussel, Perna canaliculus
AUTHOR(S): McPhee, S.; Hodges, L. D.; Wright, P. F. A.; Wynne, P. M.; Kalafatis, N.; Harney, D. W.; Macrides, T. A.
CORPORATE SOURCE: Natural Products Research Group, School of Medical Sciences, Division of Laboratory Medicine, RMIT University, Bundoora, Victoria, 3083, Australia
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (2007), 146B(3), 346-356
CODEN: CBPBB8; ISSN: 1096-4959
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Total lipid exts. of Perna canaliculus (a bivalve marine mollusc native to New Zealand, commonly called the green-lipped mussel) and Mytilus edulis (commonly called the common blue mussel) moderately inhibited ovine COX-1 and COX-2 pure enzymes in vitro. The inhibition was increased after the mussel exts. were saponified by KOH hydrolysis. Protease- and protease-lipase-hydrolyzed lipid exts. of P. canaliculus exhibited similarly strong COX inhibition as the KOH-hydrolyzed extract Lyprinol (a com. extract from P. canaliculus) also exhibited strong inhibition of both COX isoforms, an effect that was increased 10-fold upon subsequent hydrolysis. In contrast, fish oil was not as anti-COX active as Lyprinol. The Lyprinol free fatty acid fraction, and to a lesser extent the Lyprinol triglyceride fraction, were the only lipid classes of Lyprinol to exhibit strong inhibition of the COX isoforms. The purified PUFA exts. were all bioactive, potently inhibiting COX-1 and COX-2. Incubation of Lyprinol in the absence of exogenous arachidonic acid (AA) showed the appearance of alternate prostaglandin metabolites, confirming Lyprinol PUFA as a competitive substrate inhibitor of AA metabolism
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1279153 CAPLUS
DOCUMENT NUMBER: 146:50169
TITLE: Lipid extract of mussels and method for preparation thereof
INVENTOR(S): Macrides, Theodore; Broadbent, Andrew Christopher
PATENT ASSIGNEE(S): Mc Farlane Marketing (Aust.) Pty. Ltd., Australia
SOURCE: PCT Int. Appl., 49pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006128244	A1	20061207	WO 2006-AU749	20060601

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,

KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: AU 2005-902896 A 20050603

AB A method is disclosed for the preparation of a lipid extract of mussels by enzymic-digestion of mussel tissue and recovery of the released lipid fraction.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:763234 CAPLUS
DOCUMENT NUMBER: 145:195586
TITLE: Antiarthritic mixture of lipid extract of green-lipped mussel (Perna canaliculus or Mytilus edulis) and garlic oil
INVENTOR(S): Cho, Jeong Suk
PATENT ASSIGNEE(S): Syspharm Co., Ltd., S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2004074025	A	20040821	KR 2004-52340	20040706

PRIORITY APPLN. INFO.: KR 2004-52340 20040706

AB An antiarthritic mixture consisting of lipid extract of green-lipped mussel(Perna canaliculus or Mytilus edulis) and garlic oil is provided, thereby inhibiting 5-lipoxygenase pathway, so that the activity of inhibiting arthritis of human or animals can be improved without side-effects. A method for treating arthritis comprises oral administration of the antiarthritic mixture consisting of lipid extract of green-lipped mussel(Perna canaliculus or Mytilus edulis) and garlic oil which are mixed in a ratio of 20:1, wherein the lipid extract of green-lipped mussel(Perna canaliculus or Mytilus edulis) contains sterol esters, triglyceride, free fatty acids, sterol and phospholipid; lipid extract of green-lipped mussel(Perna canaliculus or Mytilus edulis) is prepared by using supercrit. fluid extraction; the garlic oil contains 57% of diallyl, 37% of allyl Me, and 6% of di-Me mono to hexa sulfide; and the garlic oil is prepared by using steam distillation

L1 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:732736 CAPLUS
DOCUMENT NUMBER: 143:199706
TITLE: Solvent extraction of lipids such as essential fatty acids

INVENTOR(S): Chandler, Anthony Michael; Whitton, Peter Andrew; Lau, Andre Ka-Chun
PATENT ASSIGNEE(S): Bionovate Limited, UK
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005073354	A1	20050811	WO 2005-GB337		20050128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2005209480	A1	20050811	AU 2005-209480		20050128
CA 2554932	A1	20050811	CA 2005-2554932		20050128
EP 1716221	A1	20061102	EP 2005-702079		20050128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS					
US 20070270600	A1	20071122	US 2006-597466		20060726
PRIORITY APPLN. INFO.:			GB 2004-2146	A	20040130
			GB 2004-11164	A	20040519
			WO 2005-GB337	W	20050128

AB Lipids (including fatty acids) are extracted from animal solids such as powdered, freeze dried or fresh meat of green lipped mussel (Perna canaliculus) by mixing said solids with a solvent such as acetone capable of dissolving lipids therefrom to form a solvent extract, removing solvent from said extract by nanofiltration to produce a concentrated lipid extract and recovered solvent, and removing further solvent from the concentrated extract by rotary evaporation to leave extracted lipids particularly rich in eicosatetraenoic acids (ETA's). Green lipped mussel was extracted with acetone to obtain 15.7% polyunsatd. fatty acids.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:499988 CAPLUS
DOCUMENT NUMBER: 143:245186
TITLE: Gas chromatography-chemical ionization-mass spectrometric fatty acid analysis of a commercial supercritical carbon dioxide lipid extract from New Zealand green-lipped mussel (Perna canaliculus)
AUTHOR(S): Wolyniak, Christopher J.; Brenna, J. Thomas; Murphy, Karen J.; Sinclair, Andrew J.
CORPORATE SOURCE: Division of Nutritional Sciences, Savage Hall, Cornell

University, Ithaca, NY, USA
SOURCE: Lipids (2005), 40(4), 355-360
CODEN: LPDSAP; ISSN: 0024-4201
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Supercrit. fluid exts. of New Zealand green-lipped mussels (NZGLM) have been suggested to have therapeutic properties related to their oil components. The large number of minor FA in NZGLM extract was characterized by a GC-CIMS/MS method that excels at identification of double-bond positions in FAME. The extract contained five major lipid classes: sterol esters, TAG, FFA, sterols, and polar lipids. The total FA content of the lipid extract was 0.664 g/mL. Fifty-three unsatd. FA (UFA) were fully identified, of which 37 were PUFA, and a further 21 UFA were detected for which concns. were too low for assignment of double-bond positions. There were 17 saturated FA, with 14:0, 16:0, and 18:0 present in the greatest concentration The 10 n-3 PUFA detected included 20:5n-3 and 22:6n-3, the two main n-3 FA; n-3 PUFA at low concns. were 18:3, 18:4, 20:3, 20:4, 21:5, 22:5, 24:6, and 28:8. There were 43 UFA from the n-4, n-5, n-6, n-7, n-8, n-9, n-10, n-11 families, with 16:2n-4, 16:1n-5, 18:1n-5, 18:2n-6, 20:4n-6, 16:1n-7, 20:1n-7, 16:1n-9, 18:1n-9, and 20:1n-9 being the most abundant. In general, we estimated that FAME concns. greater than 0.05% (weight/weight) were sufficient to assign double-bond positions. In total, 91 FA were detected in an extract of the NZGLM, whereas previous studies of fresh flesh from the NZGLM had reported identification of 42 FA. These data demonstrate a remarkable diversity of NZGLM FA.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:17400 CAPLUS
DOCUMENT NUMBER: 140:65152
TITLE: Antiinflammatory agent mixture containing a mixture of active substances from green-lipped mussels and additional omega-3-fatty acids
INVENTOR(S): Lingens, Johann Matthias
PATENT ASSIGNEE(S): Bio-Innovation Development, Limited, N. Z.
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1378244	A1	20040107	EP 2003-14959	20030701
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			DE 2002-20210182 U	20020701

AB The invention concerns active substance mixts. that contain a lipids from green-lipped mussels (Perna canaliculus) and ω-3 unsatd. fatty acids from other maritime organisms or plants; the compns. are used as antiinflammatory agents. The substances are isolated from the mussel gonads; they are used in form of exts. or lyophilizates; ω-3 unsatd. fatty acids are from fish oil or plants. Addnl. nutrients can be added. Liqs., pastes,

powders, capsules are prepared
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:688516 CAPLUS
TITLE: Pet food for maintenance of joint health and alleviation of arthritic symptoms in companion animals
INVENTOR(S): Bui, Linh M.; Bierer, Tiffany L.; Hodge, Jason; Bektash, Roger; Blackwood, Graeme
PATENT ASSIGNEE(S): Kal Kan Foods, Inc., USA
SOURCE: PCT Int. Appl.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056164	A1	20000928	WO 2000-US7533	20000321
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6596303	B1	20030722	US 1999-273933	19990322
CA 2364847	A1	20000928	CA 2000-2364847	20000321
EP 1164863	A1	20020102	EP 2000-918229	20000321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000009219	A	20020521	BR 2000-9219	20000321
JP 2002538845	T	20021119	JP 2000-606081	20000321
NZ 514389	A	20030829	NZ 2000-514389	20000321
RU 2230458	C2	20040620	RU 2001-128302	20000321
ZA 2001007785	A	20020920	ZA 2001-7785	20010920
MX 2001PA09594	A	20020812	MX 2001-PA9594	20010921
IN 2001DN00925	A	20050311	IN 2001-DN925	20011010
US 20030124219	A1	20030703	US 2003-357607	20030204
US 6977084	B2	20051220		

PRIORITY APPLN. INFO.: US 1999-273933 A 19990322
WO 2000-US7533 W 20000321

AB A pet food product and process for producing the pet food product for use in maintenance of healthy joints and alleviation of arthritic symptoms in companion animals, the pet food comprising an effective amount of an active extract of Perna canaliculus . The extract can be either a powder or lipid extract . Preferably in an amount that provides for a dosage range of generally 0.18 to 114 mg of a powder extract/kg of body weight/day in a companion animal or an amount of generally 1.5 to 1000 mg of a powder extract of Perna canaliculus per 400 kcal of pet food product.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:645867 CAPLUS
DOCUMENT NUMBER: 133:227722
TITLE: Inhibitor of lipoxygenase pathways
INVENTOR(S): Macrides, Theodore; Kalafatis, Nicolette; Betts, Henry W.
PATENT ASSIGNEE(S): Pharmalink International Limited, Peop. Rep. China
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053198	A1	20000914	WO 2000-AU179	20000310

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 1999-9106 A 19990310
AB A method of inhibition of a lipoxygenase pathway, particularly for the treatment of a disease or condition associated with a lipoxygenase pathway, in a human or animal patient comprises administration to the patient of an effective amount of a lipid extract of Perna canaliculus or Mytilus edulis .
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:377078 CAPLUS
DOCUMENT NUMBER: 125:33173
TITLE: Antiinflammatory preparation containing 5,11,14,17-eicosatetraenoic acid
INVENTOR(S): Macrides, Theodore; Kalafatis, Nicolette
PATENT ASSIGNEE(S): J.W. Broadbent Nominees Pty. Ltd., Australia
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9605164	A1	19960222	WO 1995-AU485	19950811

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM

RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

ZA 9506661	A	19960911	ZA 1995-6661		19950810
CA 2196422	A1	19960222	CA 1995-2196422		19950811
AU 9531565	A	19960307	AU 1995-31565		19950811
EP 777641	A1	19970611	EP 1995-927574		19950811
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 2000505777	T	20000516	JP 1996-506852		19950811
PRIORITY APPLN. INFO.:			AU 1994-7405	A	19940811
			WO 1995-AU485	W	19950811

AB Claimed is an antiinflammatory preparation which comprises a purified, active fraction isolated from a lipid extract of Perna canaliculus or Mytilus edulis, or an active component thereof. The compound 5,11,14,17-eicosatetraenoic acid is a major constituent of the active fraction. In a chronic inflammation assay, said active fraction at 10 mg/Kg gave 88% inhibition of paw swelling.

L1 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	1995:449545 CAPLUS
DOCUMENT NUMBER:	122:207174
ORIGINAL REFERENCE NO.:	122:37677a,37680a
TITLE:	Extraction of lipid-soluble marine biotoxins
AUTHOR(S):	Hannah, Donald J.; Till, Desmond G.; Deverall, Terry; Jones, Paul D.; Fry, Joanne M.
CORPORATE SOURCE:	Inst. Environ. Sci. Res., Lower Hutt, 30-547, N. Z.
SOURCE:	Journal of AOAC International (1995), 78(2), 480-3 CODEN: JAINEE; ISSN: 1060-3271
PUBLISHER:	AOAC International
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB A recent extensive outbreak of toxic shellfish poisoning (TSP) in New Zealand, with at least 4 types of toxicities present, required the development of a new method for detecting lipid-soluble marine biotoxins. The complexity of studying this outbreak, requiring large sample nos., dictated the development of a robust and safe method for extracting lipid-soluble toxins. The new method is based on extraction of lipophilic compds. with acetone followed by partitioning into dichloromethane. The dichloromethane extract is evaporated to constant weight and suspended in a detergent-saline solution for use in a mouse bioassay. The new method produces an extract of superior quality, is quicker and more sensitive compared with extraction methods currently used.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	53.74	53.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-11.20	-11.20

FILE 'STNGUIDE' ENTERED AT 10:02:30 ON 22 MAY 2008

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: May 16, 2008 (20080516/UP).

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.18	54.13

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-11.20

FILE 'CAPLUS' ENTERED AT 10:04:34 ON 22 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907 - 22 May 2008 VOL 148 ISS 21
FILE LAST UPDATED: 21 May 2008 (20080521/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.36	57.49

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-11.20

FILE 'STNGUIDE' ENTERED AT 10:08:45 ON 22 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: May 16, 2008 (20080516/UP).

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	57.55

```
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    0.00     -11.20

FILE 'CAPLUS' ENTERED AT 10:09:32 ON 22 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 22 May 2008  VOL 148 ISS 21
FILE LAST UPDATED: 21 May 2008  (20080521/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> d his

     (FILE 'HOME' ENTERED AT 09:58:58 ON 22 MAY 2008)

     FILE 'CAPLUS' ENTERED AT 09:59:21 ON 22 MAY 2008
L1           14 S PERNA (W) CANALICULUS (L) LIPID (L) (EXTRACT OR EXTRACTION)

     FILE 'STNGUIDE' ENTERED AT 10:02:30 ON 22 MAY 2008

     FILE 'CAPLUS' ENTERED AT 10:04:34 ON 22 MAY 2008

     FILE 'STNGUIDE' ENTERED AT 10:08:45 ON 22 MAY 2008

     FILE 'CAPLUS' ENTERED AT 10:09:32 ON 22 MAY 2008

=> s mussel (L) lipid (L) solvent (L) (extract or extraction)
          8578 MUSSEL
          6385 MUSSELS
         10605 MUSSEL
                (MUSSEL OR MUSSELS)
        309601 LIPID
        220056 LIPIDS
        376027 LIPID
                (LIPID OR LIPIDS)
        739901 SOLVENT
        355476 SOLVENTS
        923562 SOLVENT
                (SOLVENT OR SOLVENTS)
```

```
         50709 EXTRACT
         51913 EXTRACTS
         97808 EXTRACT
                 (EXTRACT OR EXTRACTS)
        342090 EXT
        241643 EXTS
        519508 EXT
                 (EXT OR EXTS)
        555103 EXTRACT
                 (EXTRACT OR EXT)
        173034 EXTRACTION
          1252 EXTRACTIONS
        173766 EXTRACTION
                 (EXTRACTION OR EXTRACTIONS)
        434936 EXTN
         15754 EXTNS
        440931 EXTN
                 (EXTN OR EXTNS)
        476055 EXTRACTION
                 (EXTRACTION OR EXTN)
L2          12 MUSSEL (L) LIPID (L) SOLVENT (L) (EXTRACT OR EXTRACTION)

=> s l2 not l1
L3          11 L2 NOT L1

=> d l3 1-11 ibib abs

L3   ANSWER 1 OF 11  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2008:122303  CAPLUS
TITLE:                   Bioaccumulation and retention of 14C-hexachlorobenzene
                         (HCB): I. The marine tropical mussel Perna perna
AUTHOR(S):               Andrea, Mara M.; Tomas, Acacio R. G.; Vampre, Thais
                         M.; Barreto, Oscar J. S.; Luchini, Luiz C.
CORPORATE SOURCE:        Centro de Pesquisa e Desenvolvimento de Protecao
                         Ambiental, Instituto Biologico, Sao Paulo, Brazil
SOURCE:                  Environmental Bioindicators (2007), 2(4), 219-228
                         CODEN: EBNIA6; ISSN: 1555-5275
PUBLISHER:               Taylor & Francis, Inc.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   HCB (hexachlorobenzene) is a ubiquitous pollutant, which is highly toxic
     to aquatic organisms; however, it is continuously generated and released
     to the environment.  In order to explore the potential of the
     mussel Perna perna as a sentinel species for monitoring HCB
     contamination, we have investigated the accumulation and depuration
     kinetics of 14C-HCB in the mussel exposed to spiked sediment.
     The sediment, water and mussels were sampled periodically and
     submitted to solvent extraction for the determination of the
     radiocarbon and organism lipid content.  The anal. showed that
     most of the radioactivity remained in the sediment as a potential
     long-term source of pollution, whereas the HCB concentration in the seawater
was
     below the detection limit.  The mussel soft tissues were
     contaminated very little; the residues were distributed as extractable and
     bound residues, which were strongly correlated with the lipid
     content of the mussel tissues.  The sensitive radiotracer
     technique used allowed the detection of the small amts. of bound residues
```

bioaccumulated; the latter could not be detected using conventional techniques. The bound residues were not depurated from mussel tissues when non-contaminated conditions were restored. The bioaccumulation factor (BAF) values were low, probably because these mussels were contaminated mainly by suspended matter, similar to what occurs in water-column organisms. Results also suggest that any detection of HCB in mussels would indicate a high overall level of environmental contamination.

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1398464 CAPLUS
DOCUMENT NUMBER: 148:478757
TITLE: Lipid extraction has little effect on the δ15N of aquatic consumers
AUTHOR(S): Ingram, Travis; Matthews, Blake; Harrod, Chris; Stephens, Tom; Grey, Jonathan; Markel, Russell; Mazumder, Asit
CORPORATE SOURCE: Department of Zoology, University of British Columbia, Vancouver, BC, V6T 1Z4, Can.
SOURCE: Limnology and Oceanography: Methods (2007), 5(Oct.), 338-343
CODEN: LOMIBY; ISSN: 1541-5856
URL: http://aslo.org/lomethods/locked/2007/0338.pdf
PUBLISHER: American Society of Limnology and Oceanography
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
AB Proper application of stable isotopes (e.g., δ15N and δ13C) to food web anal. requires an understanding of all nondietary factors that contribute to isotopic variability. Lipid extraction is often used during stable isotope anal. (SIA), because synthesized lipids have a low δ13C and can mask the δ13C of a consumer's diet. Recent studies indicate that lipid extraction intended to adjust δ13C may also cause shifts in δ15N, but the magnitude of and reasons for the shift are highly uncertain. We examined a large data set (n = 854) for effects of lipid extraction (using Bligh and Dyer's [1959] chloroform-methanol solvent mixts.) on the δ15N of aquatic consumers. We found no effect of chemical extracting lipids on the δ15N of whole zooplankton, unionid mussels, and fish liver samples, and found a small increase in fish muscle δ15N of .apprx.0.4.permill.. We also detected a neg. relationship between the shift in δ15N following extraction and the C:N ratio in muscle tissue, suggesting that effects of extraction were greater for tissue with lower lipid content. As long as appropriate techniques such as those from Bligh and Dyer (1959) are used, effects of lipid extraction on δ15N of aquatic consumers need not be a major consideration in the SIA of food webs.

L3 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1199548 CAPLUS
DOCUMENT NUMBER: 148:48953
TITLE: Improved cleanup technique for gas chromatographic-mass spectrometric determination of alkylphenols from biota extract
AUTHOR(S): Wang, Juan; Dong, Meihua; Shim, Won Joon; Kannan, Narayanan; Li, Donghao
CORPORATE SOURCE: Analysis and Inspection Center, Yanbian University,

Jilin Province, 977, Peop. Rep. China
SOURCE: Journal of Chromatography, A (2007), 1171(1-2), 15-21
CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A simple and economical cleanup technique was developed to determine alkylphenols by GC-MS from biol. exts. containing relatively high lipids. The lipids were successfully removed from bivalve exts. through a two-step cleanup. The new method is a combination of Florisil adsorption chromatog. and silyl derivatization technique. Low and high (non-polar and highly polar) mol. weight lipids were removed from the biota extract with deactivated Florisil column in the first step. And in the second step, middle mol. weight (middle polar) lipids were removed in an activated Florisil column after the alkylphenols were converted to corresponding silyl derivs. with bis(trimethylsilyl)trifluoroacetamide (BSTFA). On the basis of the above results, a simple cleanup kit was developed for convenience. The technique was optimized with reference to the activity of packing materials and polarity of eluting solvents. Only 3 g of Florisil, 25 mL of hexane and 10 mL of dichloromethane were required for one sample. The recoveries of alkylphenols from spiked samples varied from 88 to 103% with a low relative standard deviation (mean value: 5.3%) and the recovery was similar or even higher than other methods currently in use. The technique was successfully applied to mussel samples from Masan Bay, South Korea. Simultaneous measurement of these compds. in water, sediment and biota; the resulting bio-concentration factor and their relationships confirm previously published works, validating the method applied.
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:27385 CAPLUS
DOCUMENT NUMBER: 140:269719
TITLE: A GC/MS method for the determination of carcinogenic polycyclic aromatic hydrocarbons (PAH) in smoked meat products and liquid smokes
AUTHOR(S): Jira, Wolfgang
CORPORATE SOURCE: Federal Centre for Meat Research, Institute of Chemistry and Physics, Kulmbach, 95326, Germany
SOURCE: European Food Research and Technology (2004), 218(2), 208-212
CODEN: EFRTFO; ISSN: 1438-2377
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A GC/MS method for the determination of 10 polycyclic aromatic hydrocarbons (PAH) with 4 to 6 condensed aromatic carbon rings (including the 6 carcinogenic PAH) in smoked meat products and liquid smokes was developed. The method implies accelerated solvent extraction (ASE), gel permeation chromatog. for efficient lipid removal without saponification and 13C-labeled PAH for quantification. The calibration curves showed a good linearity for all PAH in the concentration range 0.01-10,000 ppb, the repeatabilities (RSDs, n = 6) of different PAH ranged from 3 to 12%. Using this method, the anal. of a standard reference material of the National Institute of Stds. and Technol. (mussel tissue, SRM 2977)

resulted in a good accordance between measured and certified PAH concns.
The determination of PAH contents in 26 samples of smoked meat products and liquid
smokes further confirmed the anal. power of the new method and gave a
first insight into the specific PAH patterns.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:714851 CAPLUS
DOCUMENT NUMBER: 132:75600
TITLE: Determination of total lipid using non-chlorinated solvents
AUTHOR(S): Smedes, Foppe
CORPORATE SOURCE: Ministry of Transport, Public Works and Water Management, National Institute for Coastal and Marine Management/RIKZ, Haren, 9750 AE, Neth.
SOURCE: Analyst (Cambridge, United Kingdom) (1999), 124(11), 1711-1718
CODEN: ANALAO; ISSN: 0003-2654
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The restrictions on the use of chlorinated solvents under the Montreal Protocol makes it necessary to develop an alternative method to the Bligh and Dyer lipid extraction as currently applied to marine tissues. Several different solvent mixts. were systematically tested as a replacement for chloroform. The presence of a polar solvent is a prerequisite in order to obtain phase separation between the aqueous and organic phases, but too high a concentration of solvent in the aqueous phase prevents the more polar lipids from being extracted A high content of water in the organic phase can result in co-extraction of non-lipids. Several combinations of solvents may be able to extract lipids, but for reasons of safety and toxicity, a propan-2-ol-cyclohexane-water (8 +10 +11 volume/volume/v) mixture has been proposed. The method is not sensitive to a wide range of sample-phase volume ratios provided that the solvent compns. remain constant Application to plaice, mussel and herring samples showed results that were in agreement with the extraction following Bligh and Dyer using chloroform and methanol.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:573574 CAPLUS
DOCUMENT NUMBER: 127:201110
TITLE: Automated sample clean-up and fractionation of chlorpyrifos, chlorpyrifos-methyl and metabolites in mussels using normal-phase liquid chromatography
AUTHOR(S): Serrano, R.; Lopez, F. J.; Roig-Navarro, A.; Hernandez, F.
CORPORATE SOURCE: Analytical Chemistry, Department of Experimental Sciences, University Jaume I, P.O. Box 224, Castellon, E-12080, Spain
SOURCE: Journal of Chromatography, A (1997), 778(1 + 2), 151-160
CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An automated method based on normal-phase LC has been developed for the sample clean-up of mussel exts. prior to gas chromatog. anal. of residues of chlorpyrifos, chlorpyrifos-Me and their metabolites chlorpyrifos-methyl-oxon and 3,5,6-trichloro-2-pyridinol. Pesticides were extracted by means of a high speed blender using acetonitrile-acetone (90:10, volume/volume). The extract obtained was filtered and concentrated using rotavapor and the residue was dissolved in hexane. One mL of the hexanoic extract was injected on the silica-gel column, using hexane as mobile phase. Pesticides and metabolites were eluted in fat-free fractions with different mixts. of hexane-Et acetate. Diode array detection allowed monitoring online the elution of lipids. Purified exts. were analyzed by GC using nitrogen-phosphorus detection for quantitation and MS for confirmatory purposes. The method is fully automated from the injection of the extract to the collection of fractions, which are directly injected into the GC system. In this way, neither further clean-up nor solvent exchange were necessary prior to GC anal. Recoveries obtained from fortified mussel samples at two concentration levels -100 and 20 ng g-1 for parent pesticides and 200 and 40 ng g-1 for metabolites- were higher than 90%. Limits of detection of the whole procedure of anal. were lower than 1 ng g-1 for parent pesticides and than 10 ng g-1 for metabolites. This method has been successfully applied to bioconcn. studies with mussels exposed to chlorpyrifos. Chlorpyrifos and its metabolic derivative 3,5,6-trichloro-2-pyridinol were detected and confirmed by MS in analyzed samples.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:635837 CAPLUS
DOCUMENT NUMBER: 125:322143
TITLE: Evaluation of the results of the QUASIMEME lipid intercomparison: the Bligh and Dyer total lipid extraction method
AUTHOR(S): Roose, Patrick; Smedes, Foppe
CORPORATE SOURCE: Centre for Agricultural Research, Fisheries Research Station, Oostende, 8400, Belg.
SOURCE: Marine Pollution Bulletin (1996), 32(8/9), 674-680
CODEN: MPNBAZ; ISSN: 0025-326X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The results of the QUASIMEME lipid intercomparison exercise were evaluated in relation to the Bligh & Dyer (1959) total lipid extraction method. Most of the participants provided detailed information on their methods and a comparison was made based on the following parameters: drying temperature; subsampling; sample intake; solvent composition of the extraction-and partition mixture; the use of a second extraction; mixing method; and the use of filtration. Only a small number of labs. applied conditions which conformed strictly to the original method of Bligh & Dyer (1959). Although these conditions were originally specified for cod muscle tissue, they are applicable to mussel tissue as well. Some differences in the results could be attributed to deviations from the original method, but none of them were

significant with the exception of subsampling. The latter resulted in significant differences between labs. that used the same extraction method, caused by an inappropriate compensation for the amount of organic phase absorbed by the tissue (Smedes & Thomasen, 1996).

L3 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:223440 CAPLUS
DOCUMENT NUMBER: 124:287484
TITLE: Detection of okadaic acid esters in the hexane extracts of Spanish mussels
AUTHOR(S): Fernandez, M. L.; Miguez, A.; Cacho, E.; Martinez, A.
CORPORATE SOURCE: Lab. Sanidad Exterior Vigo, European Community Reference Lab. Marine Biotoxins, Vigo, 36271, Spain
SOURCE: Toxicon (1996), 34(3), 381-7
CODEN: TOXIA6; ISSN: 0041-0101
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two types of low polar derivs. of OA and dinophysitoxins have been reported in shellfish or in phytoplankton: 7-O-acyl esters containing a fatty acyl group attached through the 7-OH group and diol esters in which the carboxylic group of the toxins has been esterified. These compds. cannot be directly detected by liquid chromatog. and fluorimetric detection as 9-anthryldiazomethane derivs., owing in the first case to their low polarity and high mol. weight, and in the second case because they have the carboxylic group esterified. All of them must be hydrolyzed before derivatization to be detected as Adam derivs. of the corresponding non-acylated toxins. In the Lee procedure, after extraction of the shellfish digestive glands with 80% methanol, a liquid-liquid partition with a non-polar solvent such as hexane is carried out in order to remove non-polar lipids. The presence of non-polar toxins was investigated in Spanish mussels and confirmed in the hexane layer, usually discarded in conventional extraction procedures, by anal. of the alkaline hydrolysis products. A preferred solubilization of these toxins in a non-polar solvent like hexane is reported. The inclusion of a hydrolytic step of the hexane extract in the general procedure is suggested in order to monitor the contribution of non-polar diarrhetic shellfish poisons (DSPs) to the total DSP shellfish toxicity. This is the first report of DSPs other than OA and DTX2 in Spanish mussels.

L3 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:449557 CAPLUS
DOCUMENT NUMBER: 122:207179
ORIGINAL REFERENCE NO.: 122:37677a,37680a
TITLE: Analysis of diarrhetic shellfish poisoning toxins in shellfish tissue by liquid chromatography with fluorometric and mass spectrometric detection
AUTHOR(S): Quilliam, Michael A.
CORPORATE SOURCE: Inst. Marine Biosci., Natl. Res. Council Canada, Halifax, NS, B3H 3Z1, Can.
SOURCE: Journal of AOAC International (1995), 78(2), 555-70
CODEN: JAINEE; ISSN: 1060-3271
PUBLISHER: AOAC International
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study, existing methods based on liquid chromatog. (LC) combined

with mass spectrometry (LC-MS) and LC with fluorometric detection (LC-FLD) of anthryldiazomethane (ADAM) derivs. were improved upon to achieve a high degree of accuracy and precision for the determination of diarrhetic shellfish poisoning (DSP) toxins in a new mussel tissue reference material (MUS-2). All exptl. parameters were examined comprehensively, and a new internal standard and a new solid-phase extraction cleanup method were introduced. Quant. extraction of DSP toxins from shellfish tissue was achieved by exhaustive extraction with aqueous 80% methanol. Cleanup was accomplished by partitioning the crude aqueous methanol extract with hexane to remove lipids and then with chloroform to isolate the toxins. A further cleanup based on an aminopropylsilica column was useful for LC-MS and looks promising for the ADAM/LC-FLD method. The internal standard, 7-O-acetylokadaic acid, synthesized by partial acetylation of okadaic acid (OA), improved accuracy and precision by correcting for incomplete recoveries in extraction, cleanup, and derivatization steps and for volumetric errors and instrumental drift. An improved silica cleanup after ADAM derivatization also was developed by controlling the activities of both sorbent and solvents. The methods were tested with various mussel tissue samples. The resulting improved methods will be useful to analysts involved in routine monitoring of DSP toxins.

L3 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:147357 CAPLUS
DOCUMENT NUMBER: 116:147357
ORIGINAL REFERENCE NO.: 116:24809a,24812a
TITLE: Comparison of extraction methods for the isolation of lipids and PCBs from mussel homogenate
AUTHOR(S): Latimer, J. S.; Quinn, J. G.
CORPORATE SOURCE: Grad. Sch. Oceanogr., Univ. Rhode Island, RI, USA
SOURCE: Report (1990), EPA/600/3-90/092, ERLN-X175; Order No. PB91-127787, 48 pp. Avail.: NTIS
From: Gov. Rep. Announce. Index (U. S.) 1991, 91(6), Abstr. No. 113,772
DOCUMENT TYPE: Report
LANGUAGE: English
AB A standard mussel homogenate was analyzed for total lipid mass, lipid class components, and PCBs using four different extraction procedures in an attempt to determine the most appropriate method for use in bioaccumulation studies of lipophilic organic pollutants. The four procedures included: chloroform/methanol/water (similar to the classical Bligh and Dyer method), hexane/acetonitrile/water, and hexane/methanol/water extns. at controlled volume/volume/volume ratios, and a hexane/acetonitrile method requiring minimal solvent volume ratio control. TLC anal. of the lipids, alone, was insufficient to determine qual. distinctions between the extraction procedures studied; however, Iatroscan technol. was able to provide information on both the qual. and quant. distribution of lipids in the various exts.

L3 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1967:92729 CAPLUS
DOCUMENT NUMBER: 66:92729
ORIGINAL REFERENCE NO.: 66:17323a,17326a
TITLE: Histological and chemical studies on the yellow pigment present in the nerve and other tissues of Anodonta cygnea

AUTHOR(S): Labos, Elemer; Zs.-Nagy, Imre; Hiripi, Laszlo
CORPORATE SOURCE: Hungarian Acad. Sci., Tihany, Hung.
SOURCE: Magyar Tudomanyos Akademia Matematikai es Fizikai Tudomanyok Osztalyanak Kozlemenyei (1966), 33, 37-44
CODEN: MGTMAZ; ISSN: 0025-035X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Investigations were performed on 13-20 cm. long specimens of A. cygnea. Pigment analyses were conducted on the tissues of ganglia and feet in different seasons of the year. Sections 8 μ thick were treated with concentrated acids (HCl, H2SO4, Cl3CCO2H) for the histochem. demonstration of carotenoids. Staining with alc. Sudan Black was used for the demonstration of lipids in general. Pigments were extracted from the tissues, in the presence of anhydrous Na2SO4, by various organic solvents. Benzene, EtOH, acetone, CCl4, CS2, heptane, hexane, cyclohexane, and petroleum ether were used. The absorption of uv and visible light by the exts. was measured. Differences in pigmentation were observed in the individuals examined and also in various tissues. Uniform pigmentation was observed in general in mussels originating from the same habitat. Yellow granules were observable in the cytoplasm of nerve cells, glia cells, epithelial cells of the foot, connective tissue, duct of the sexual organs, and varying cell formations of gametogenesis. The yellow color turned blue in the presence of concentrated acid and Sudan Black gave an intensive black color in areas where the yellow pigment granules were localized. The yellow pigment was not soluble in water. The average pigment content in the total ganglia of 50 mussels was 0.1 mg./g. wet weight, expressed as β-carotene equivs. On the basis of the anal. data on the carotene component of the pigment extracted from the tissues of A. cygnea, this appeared to be β-carotene. Besides β-carotene a pale yellow chromophor was also present with an absorption maximum at 420 mμ. This substance was presumably identical with the component with an absorption at 418-425 mμ which is present in the nerve cells of Aplysia and which belongs to the heme proteins. A considerable yellowish-green emission was observed in the CS2 extract at an excitation of 365 mμ which was not observed in the case of β-carotene. 13 references.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	47.41	104.96

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-8.80	-20.00

FILE 'STNGUIDE' ENTERED AT 10:15:19 ON 22 MAY 2008

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: May 16, 2008 (20080516/UP).

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION

```
FULL ESTIMATED COST                                    0.78     105.74

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    0.00     -20.00

FILE 'CAPLUS' ENTERED AT 10:23:10 ON 22 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 22 May 2008  VOL 148 ISS 21
FILE LAST UPDATED: 21 May 2008  (20080521/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> d his

     (FILE 'HOME' ENTERED AT 09:58:58 ON 22 MAY 2008)

     FILE 'CAPLUS' ENTERED AT 09:59:21 ON 22 MAY 2008
L1           14 S PERNA (W) CANALICULUS (L) LIPID (L) (EXTRACT OR EXTRACTION)

     FILE 'STNGUIDE' ENTERED AT 10:02:30 ON 22 MAY 2008

     FILE 'CAPLUS' ENTERED AT 10:04:34 ON 22 MAY 2008

     FILE 'STNGUIDE' ENTERED AT 10:08:45 ON 22 MAY 2008

     FILE 'CAPLUS' ENTERED AT 10:09:32 ON 22 MAY 2008
L2           12 S MUSSEL (L) LIPID (L) SOLVENT (L) (EXTRACT OR EXTRACTION)
L3           11 S L2 NOT L1

     FILE 'STNGUIDE' ENTERED AT 10:15:19 ON 22 MAY 2008

     FILE 'CAPLUS' ENTERED AT 10:23:10 ON 22 MAY 2008

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS                             SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.48     106.22
```

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-20.00

STN INTERNATIONAL LOGOFF AT 10:23:47 ON 22 MAY 2008